

FIG.1A

**FIG. 1B**

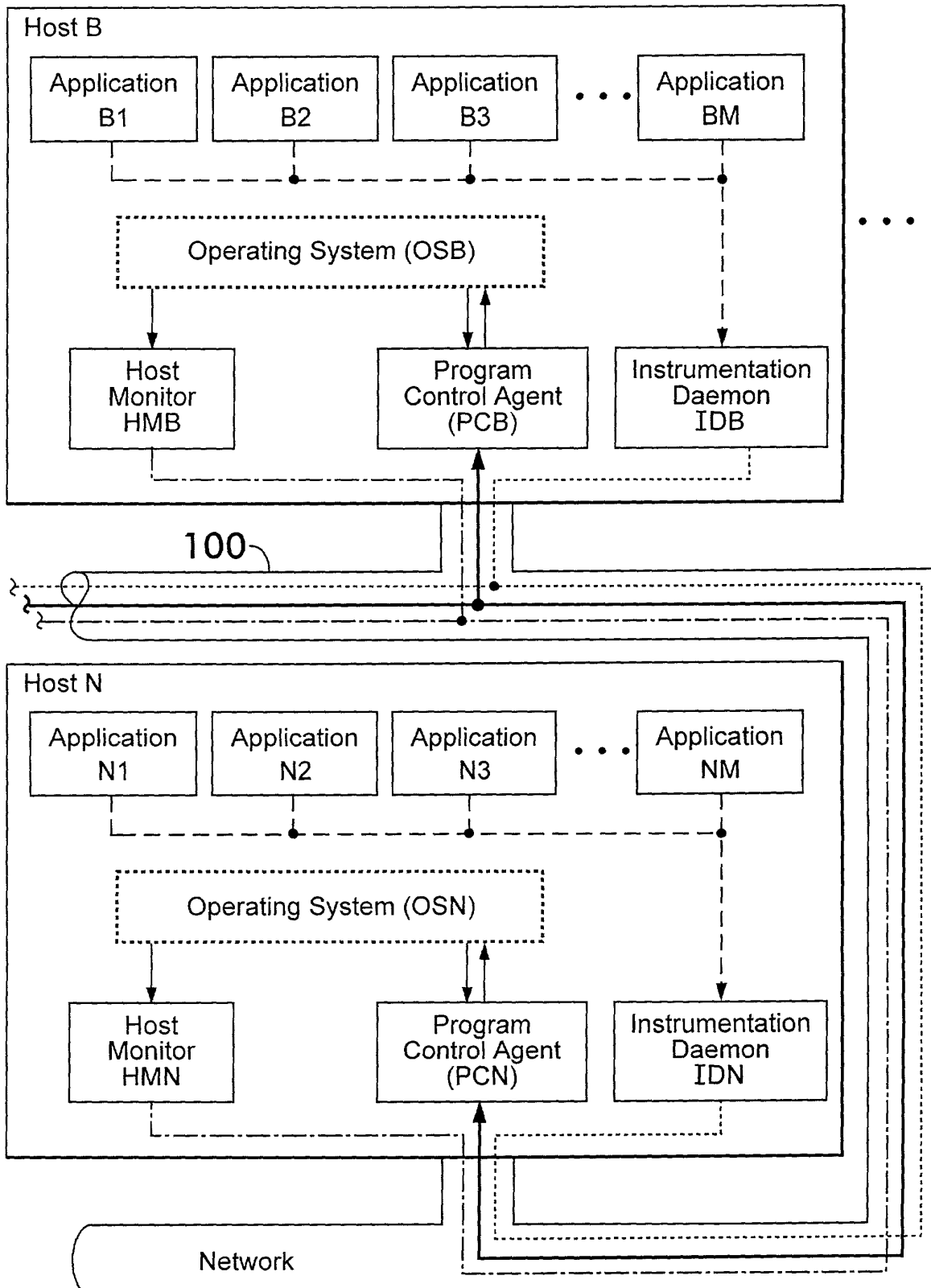
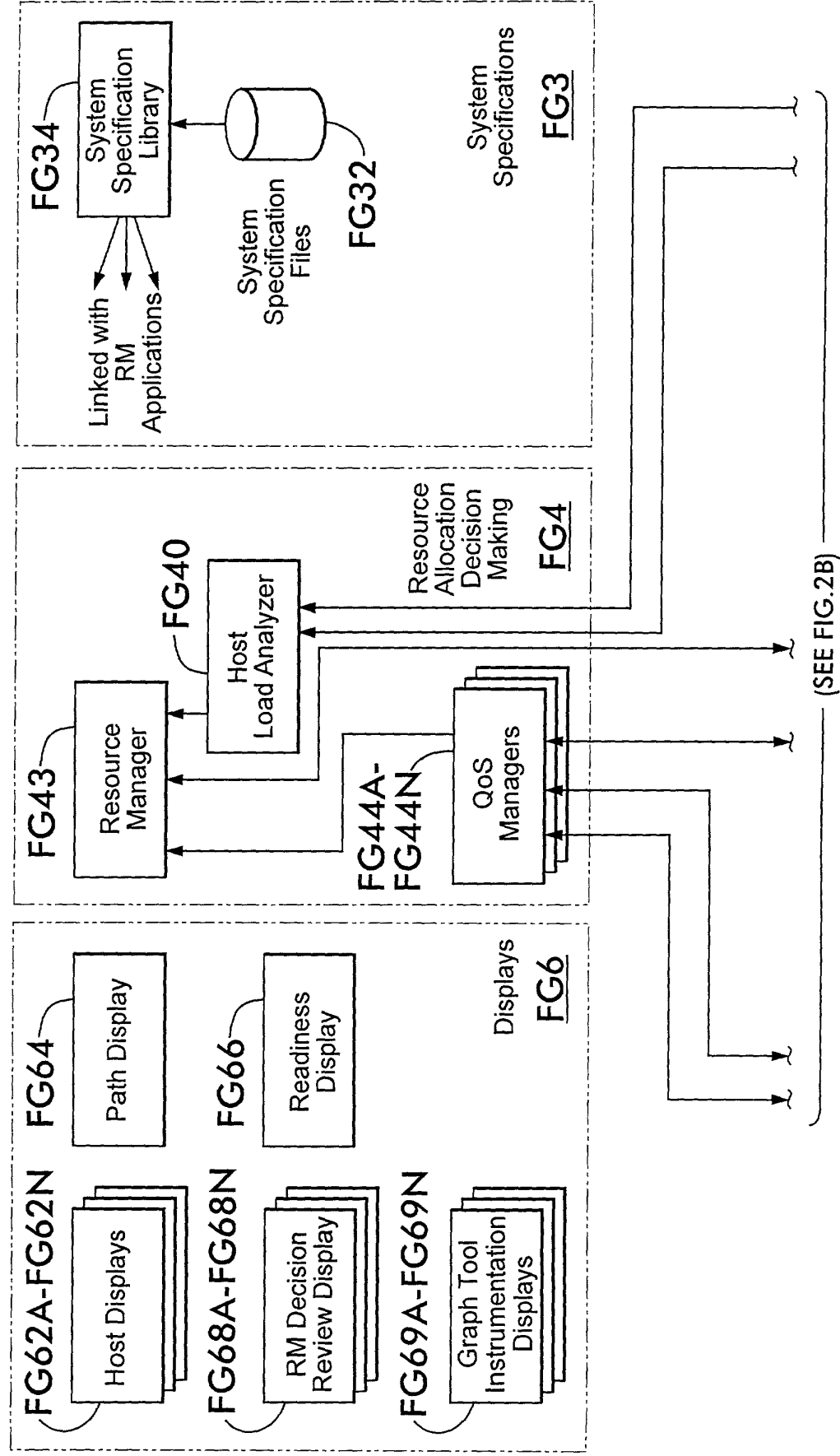
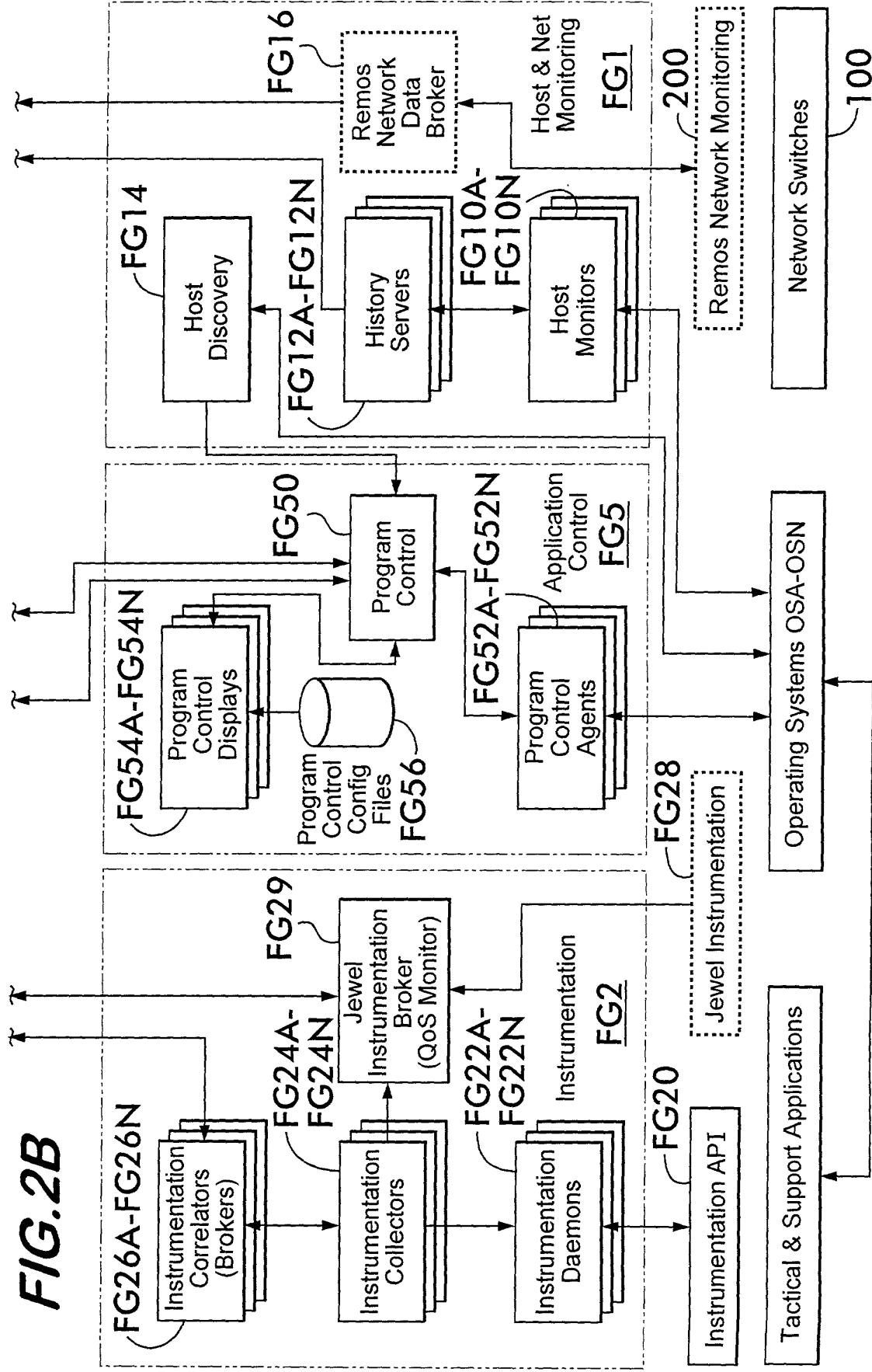


FIG. 2A





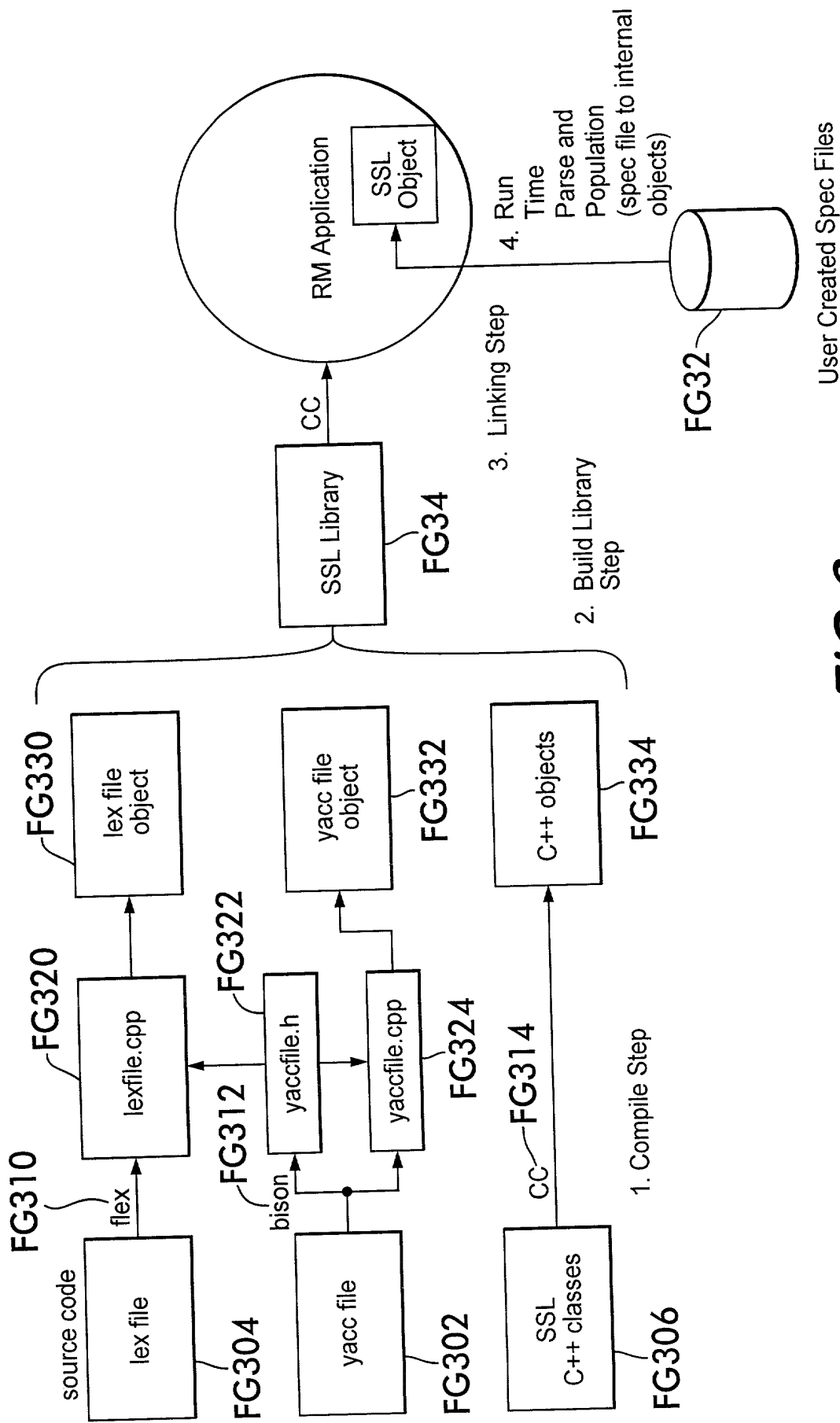
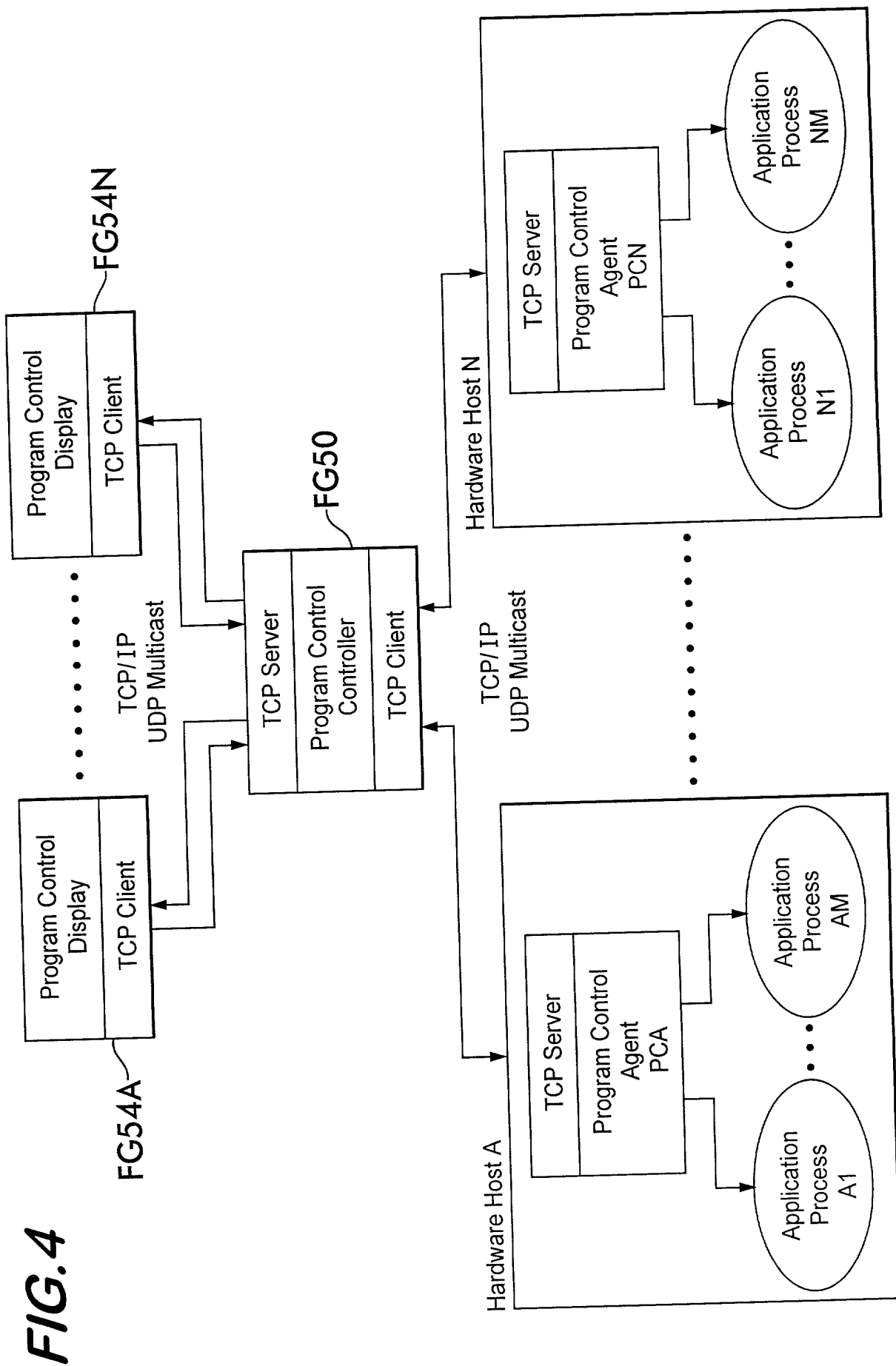


FIG.3





Auto	lafonte	AAW:Tactical_Services:Manual_Engage	serpens
Manual	lafonte	AAW:Tactical_Sims:WCS_Simulator	alphe3
Auto	lafonte	AAW:Tactical_Sims:Gun_Simulator	serpens
Auto	lafonte	AAW:Tactical_Sims:CFF_Broker	serpens
Manual	lafonte	IDSys:ID_Broker	corvus
Manual	lafonte	IDSys:SpyServer	deneb2
Auto	lafonte	AAW:Tactical_Sims:IDU_Simulator	serpens
Auto	lafonte	AAW:Doctrine:Auto_Special	serpens

Auto	lafonte	AAW:Tactical_Services:Manual_Engage	serpens
Manual	lafonte	AAW:Tactical_Sims:WCS_Simulator	alphe3
Auto	lafonte	AAW:Tactical_Sims:Gun_Simulator	serpens
Auto	lafonte	AAW:Tactical_Sims:CFF_Broker	serpens
Manual	lafonte	IDSys:ID_Broker	corvus
Manual	lafonte	IDSys:SpyServer	deneb2
Auto	lafonte	AAW:Tactical_Sims:IDU_Simulator	serpens
Auto	lafonte	AAW:Doctrine:Auto_Special	serpens

Alerts

FIG. 5B



# FIG.6A

(SEE FIG.6B)

FIG. 6A

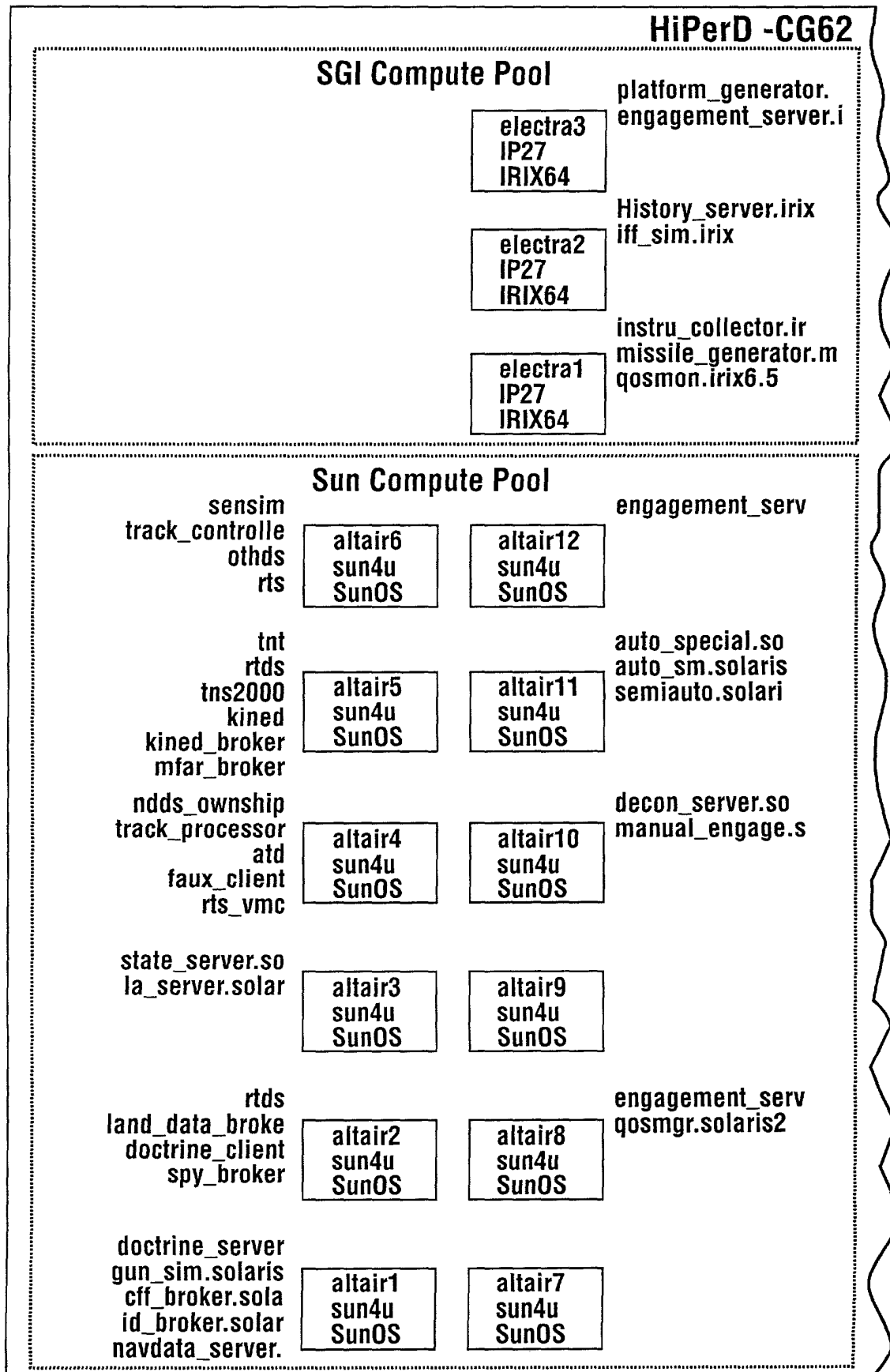


FIG. 6B

Chancellorsville

DISBroker.linux  
globus-daemons-  
lrmstatus.csh  
globusbroker.li  
globusbroker.li  
globusbroker.li  
globusbroker.li  
mfar\_sim.ndds.l

Linux Compute Pool

lupus1  
Pentium III (c  
Linux

lupus11  
Pentium III (c  
Linux

lupus10  
Pentium III (c  
Linux

lupus9  
Pentium III (c  
Linux

lupus8  
Pentium III (c  
Linux

lupus7  
Pentium III (c  
Linux

lupus6  
Pentium III (c  
Linux

lupus5  
Pentium III (c  
Linux

lupus4  
Pentium III (c  
Linux

lupus3  
Pentium III (c  
Linux

lupus2  
Pentium III (c  
Linux

WinNT Compute Pool

java

phoebe7  
Pentium Pro  
Windows NT

java  
java  
java

phoebe6  
Pentium Pro  
Windows NT

java

phoebe4  
Pentium Pro  
Windows NT

phoebe3  
Pentium Pro  
Windows NT

java

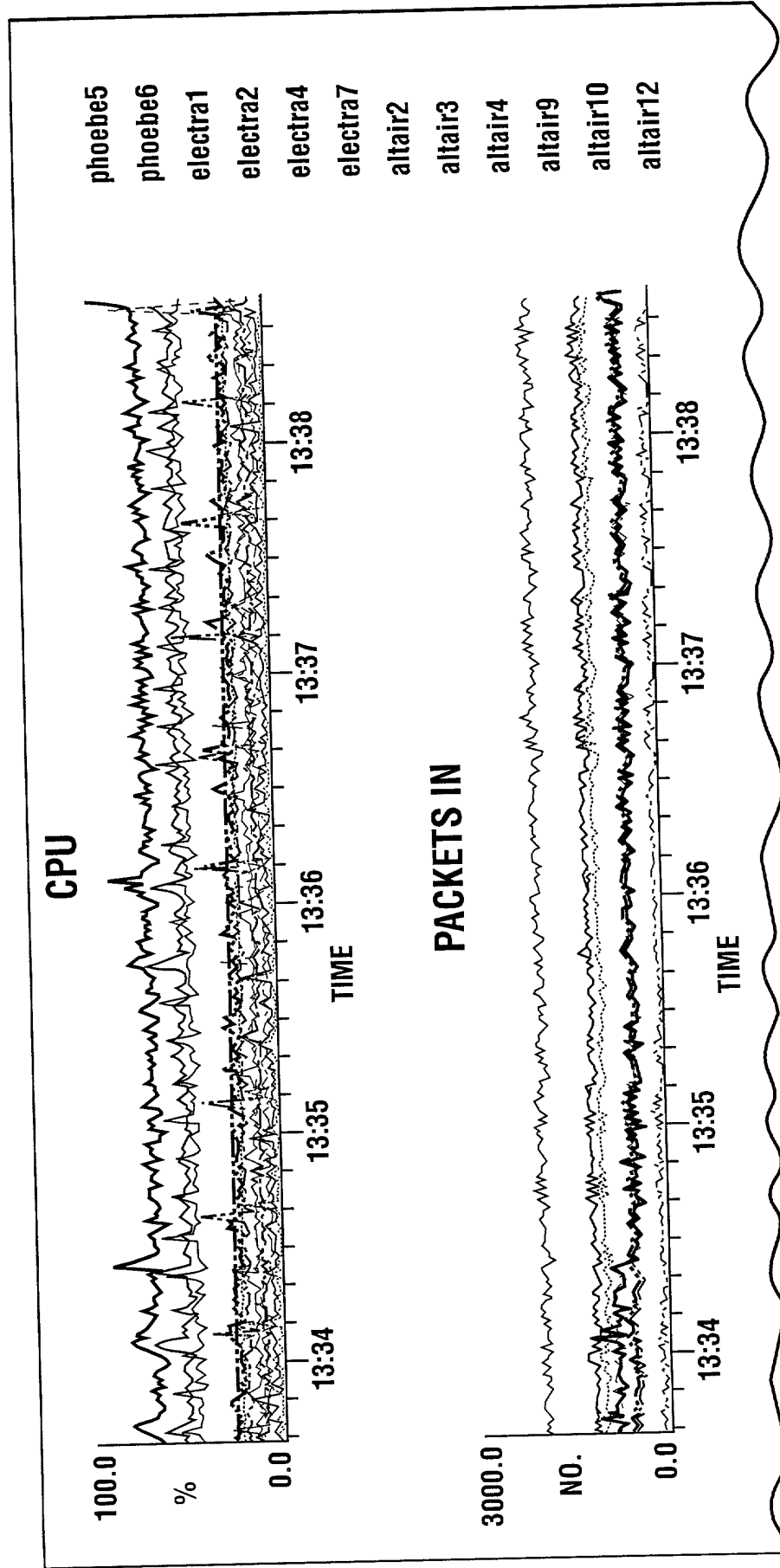
phoebe2  
Pentium Pro  
Windows NT

java

phoebe1  
Pentium Pro  
Windows NT

TOP SECRET

FIG. 7A



(SEE FIG. 7B)

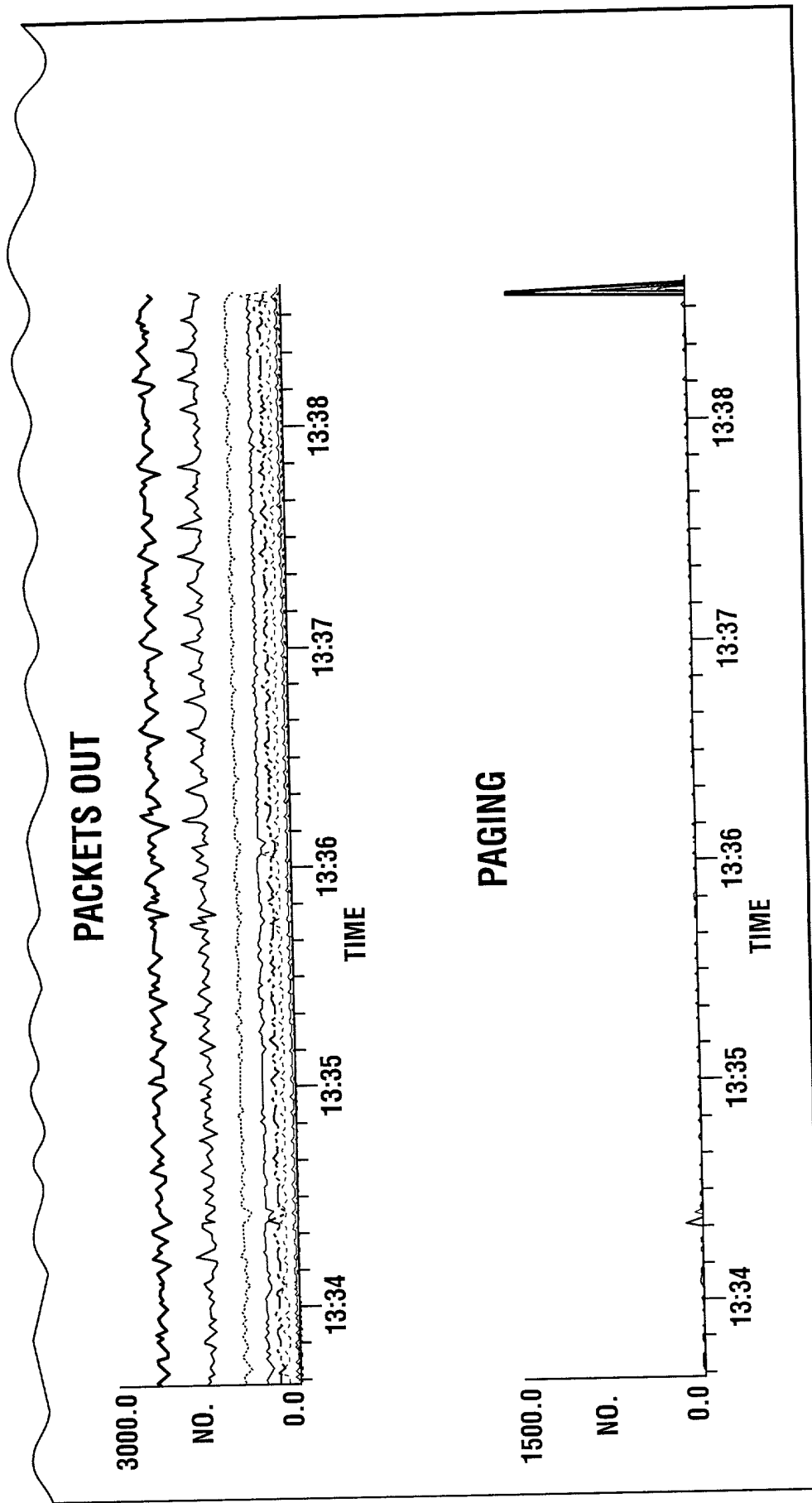
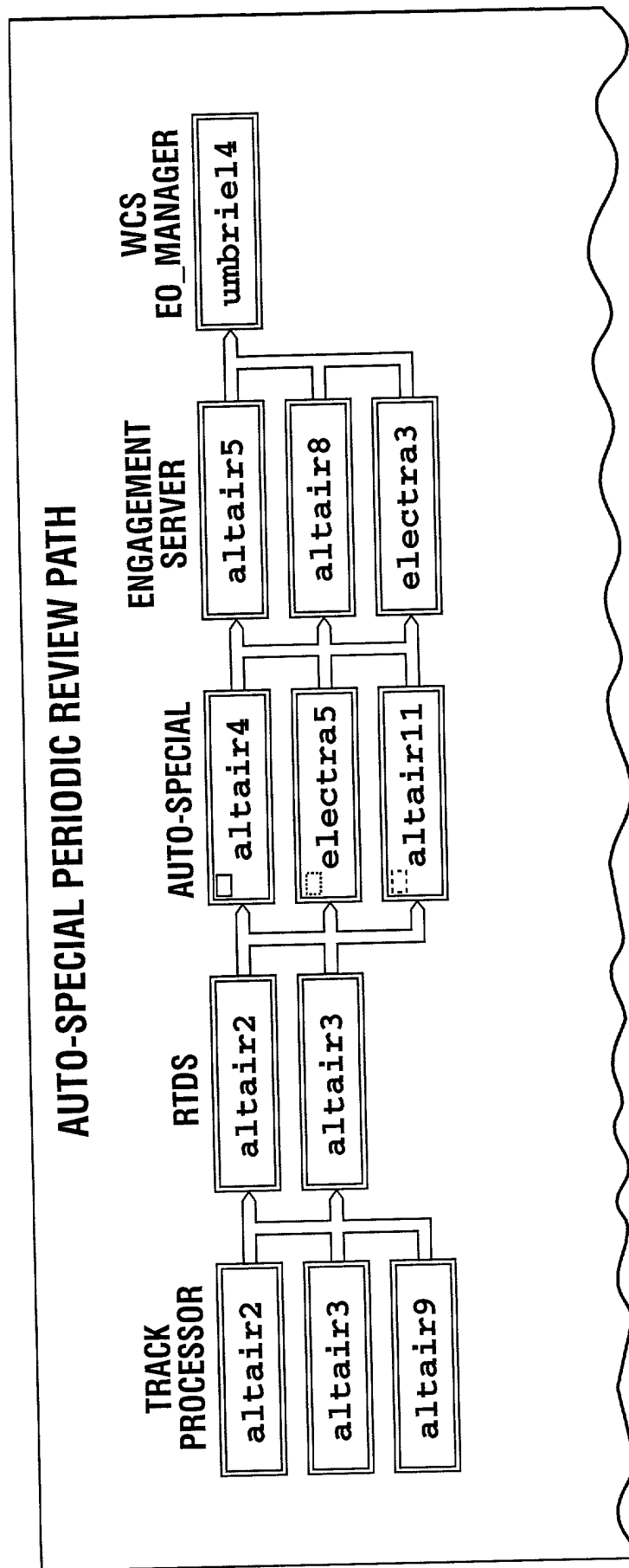


FIG. 7B

FIG.8A



(SEE FIG.8B)

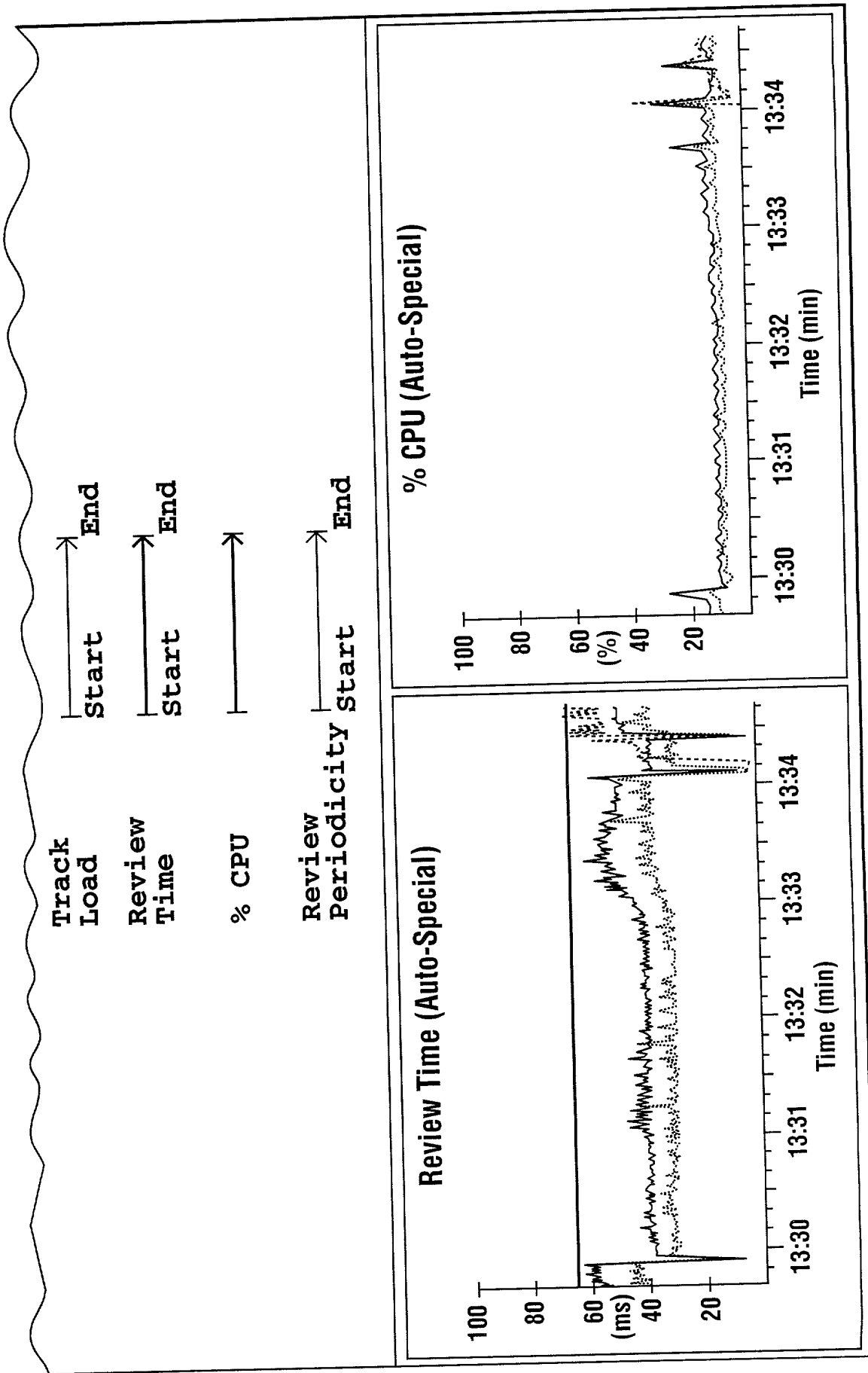


FIG.8B

FIG. 9A

Resource Management

SCALE UP PLOT

EVENTS HISTORY

EVENT#	ACTION TYPE	APPLICATION NAME	HOST EVENT	HOST ACTION
25	Application Scale Down	TBM Doctrine	lupus7	
26	Application Scale Down	TBM Doctrine	lupus7	
27	Application Scale Down	Engageability	altair10	
28	Application Scale Down	Engageability	altair12	
29	Application Scale Down	Engageability	altair8	
32	Application Restarted	QosManager_SpyDeclaredAS	orion1	altair8
33	Application Scale Up	Semi_Auto	altair11	electra2
34	Application Scale Up	Semi_Auto	altair11	altair7
35	Application Scale Up	Auto_Special	altair11	altair9
36	Application Scale Up	Semi_Auto	altair11	altair3

APPLICATION: Semi\_Auto EVENT#: 36

EVENT: Application Overload  
PID:9615 ON HOST altair11

EVENT TIME: 14:24:56.6355

ACTION: Application Scale Up  
PID:10186 ON HOST altair3

ACTION TIME: 14:24:56.6427 14:24:56.6846

RESPONSE TIME: 0.0073 0.0491

APPLICATION: Auto\_Special EVENT#: 35

EVENT: Application Overload  
PID:9613 ON HOST altair11

EVENT TIME: 14:24:33.2620

ACTION: Application Scale Up

(SEE FIG. 9B)

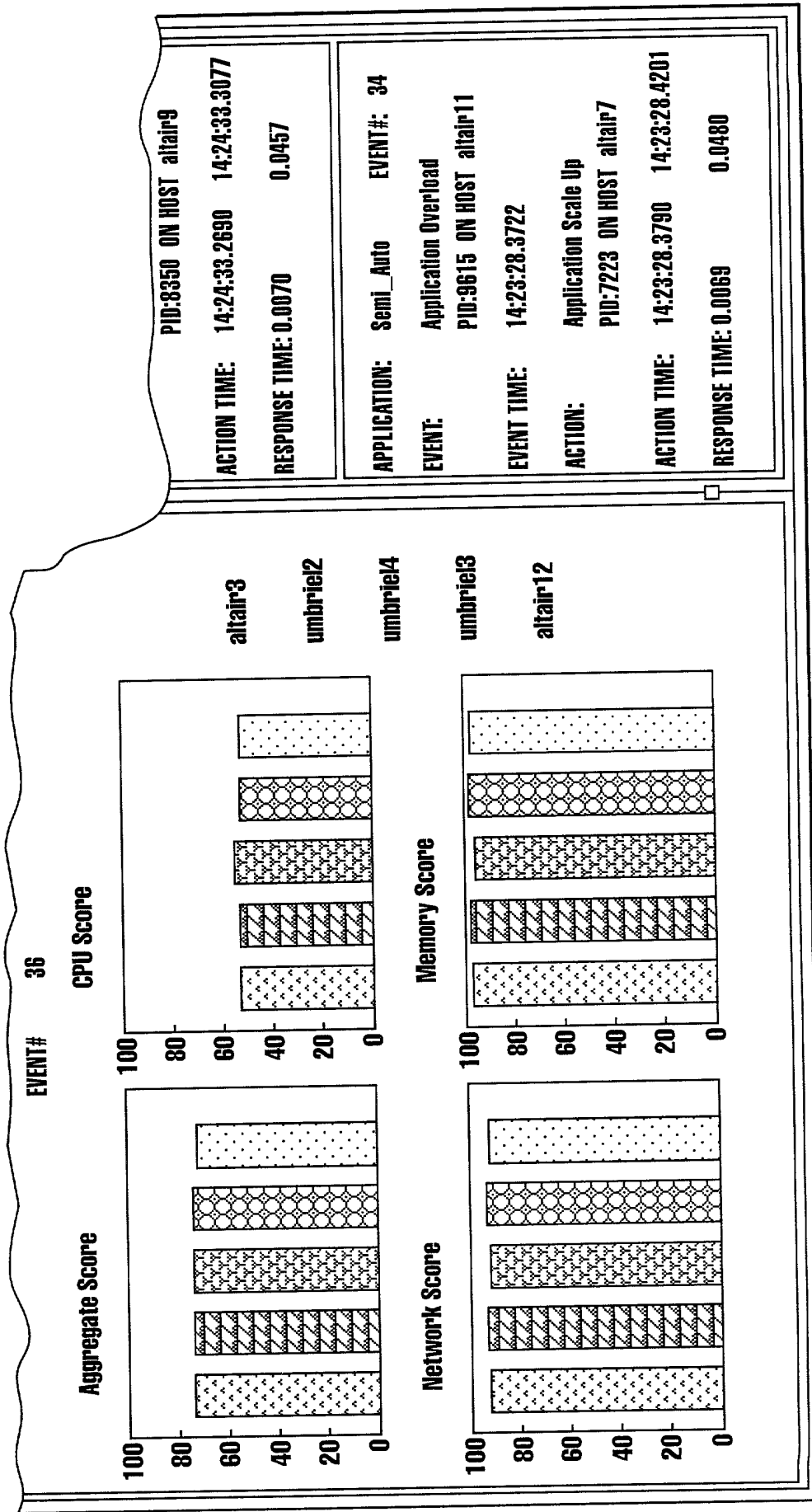
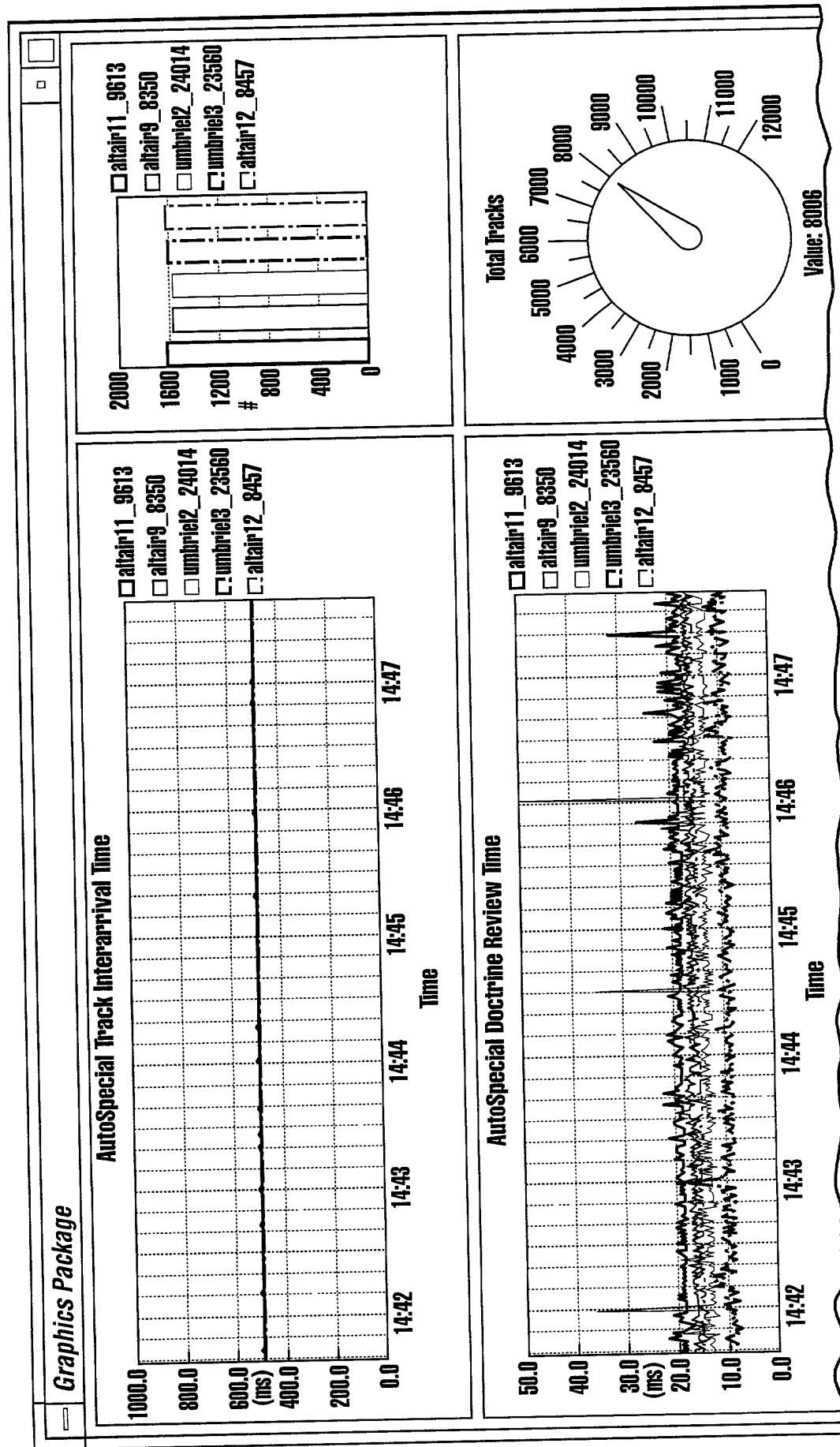


FIG.9B



FIG.10A



(SEE FIG.10B)

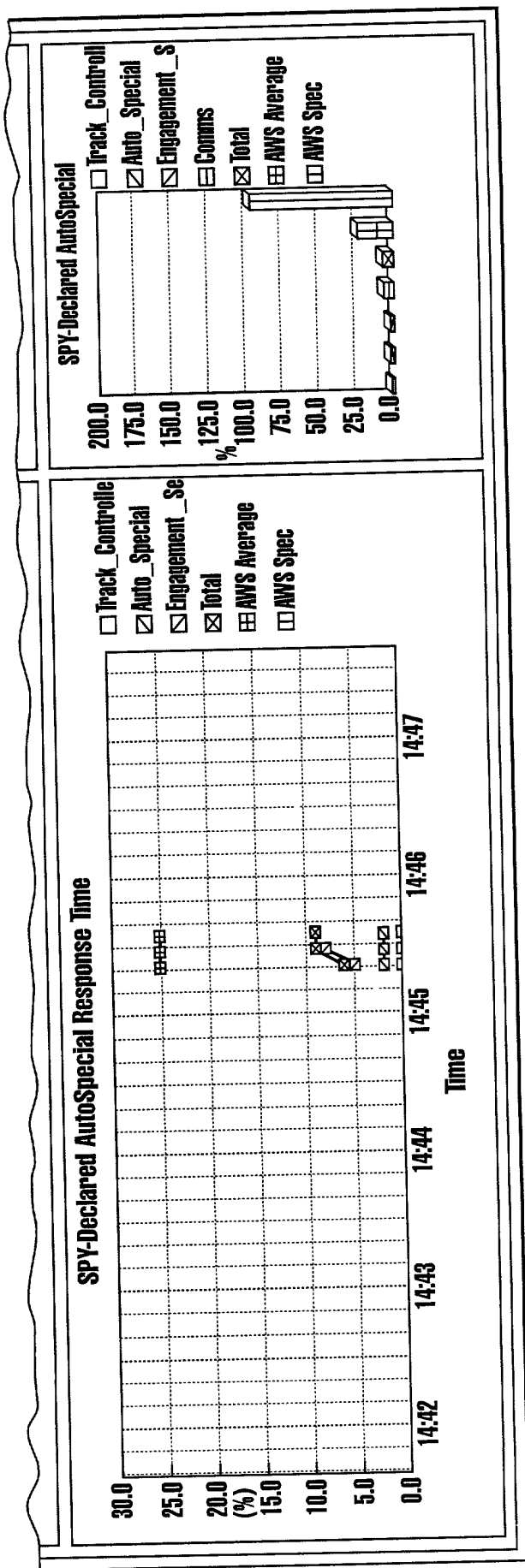
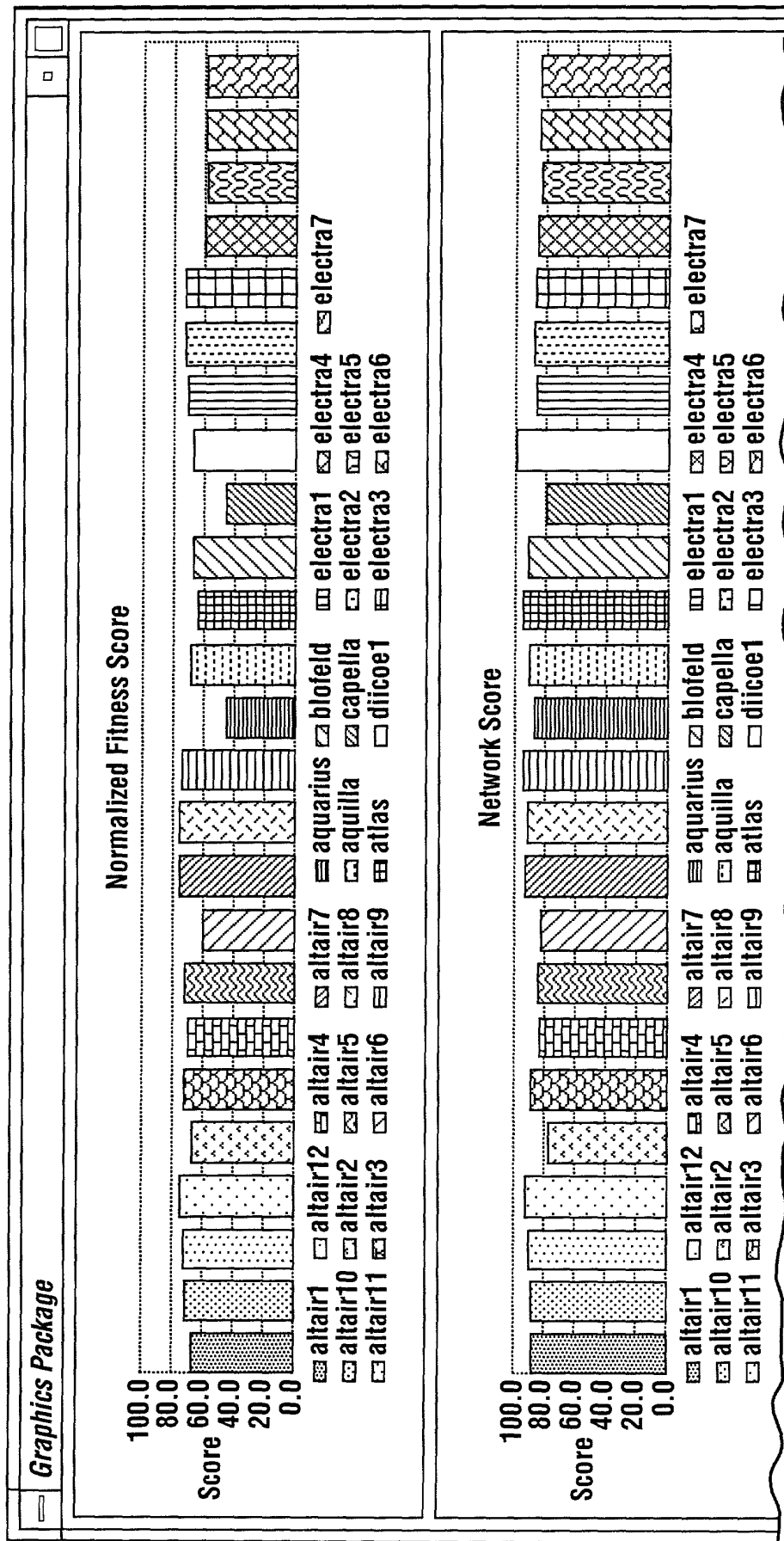


FIG.10B

FIG. 11A



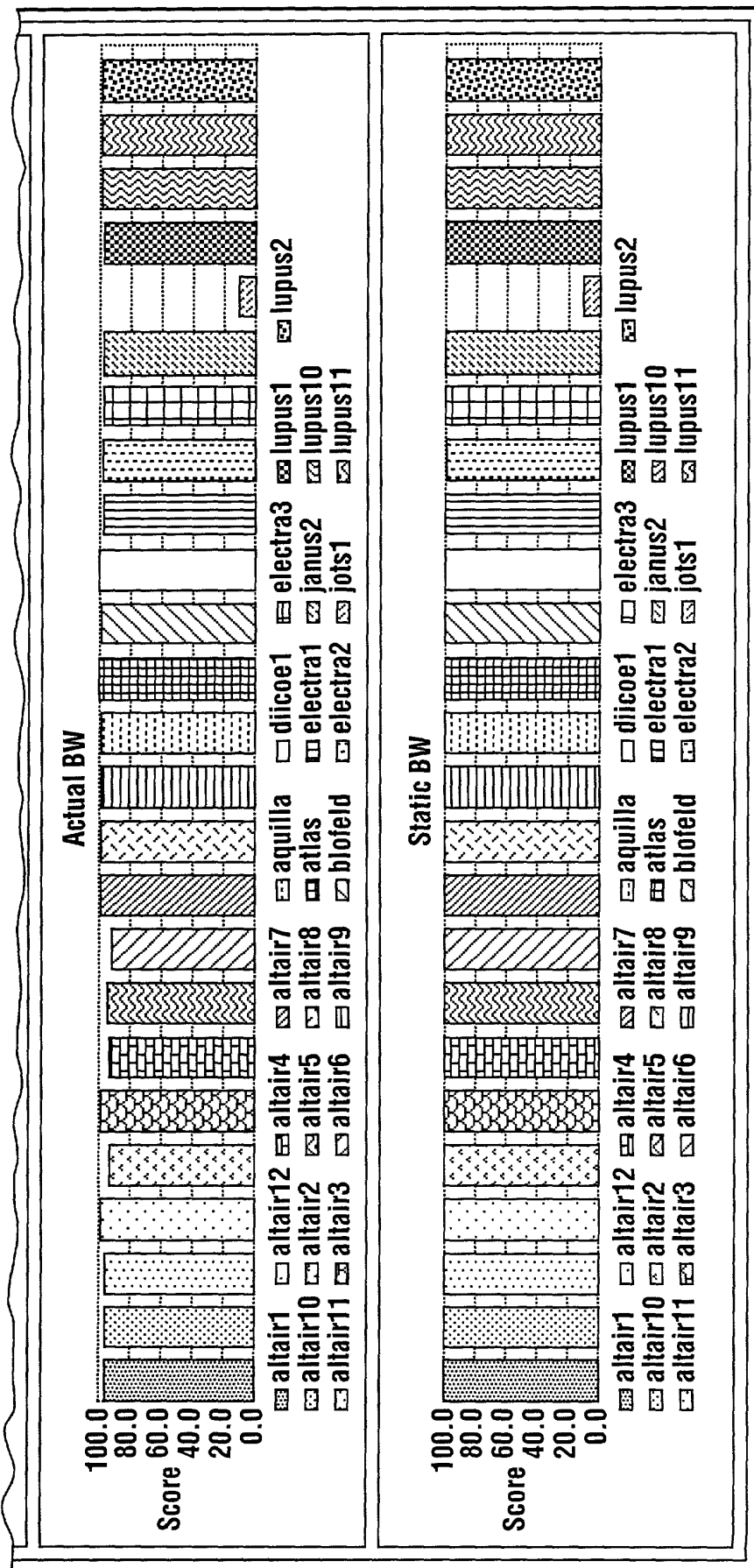
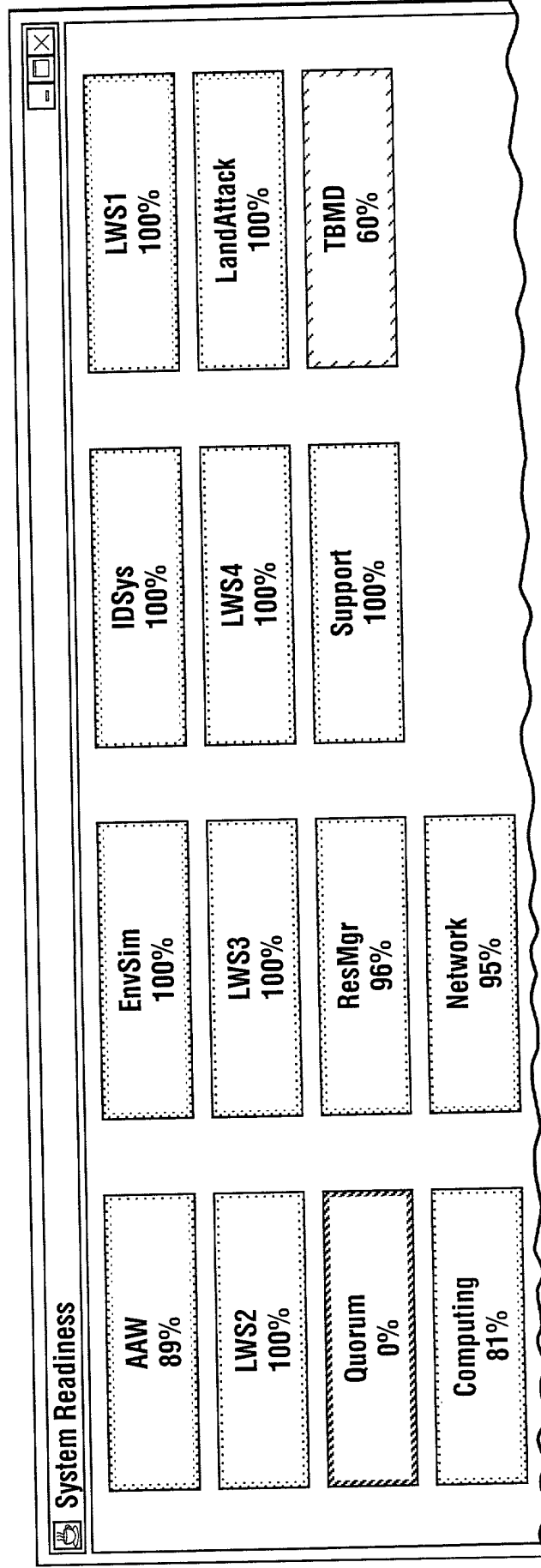


FIG.11B

FIG.12A



(SEE FIG.12B)

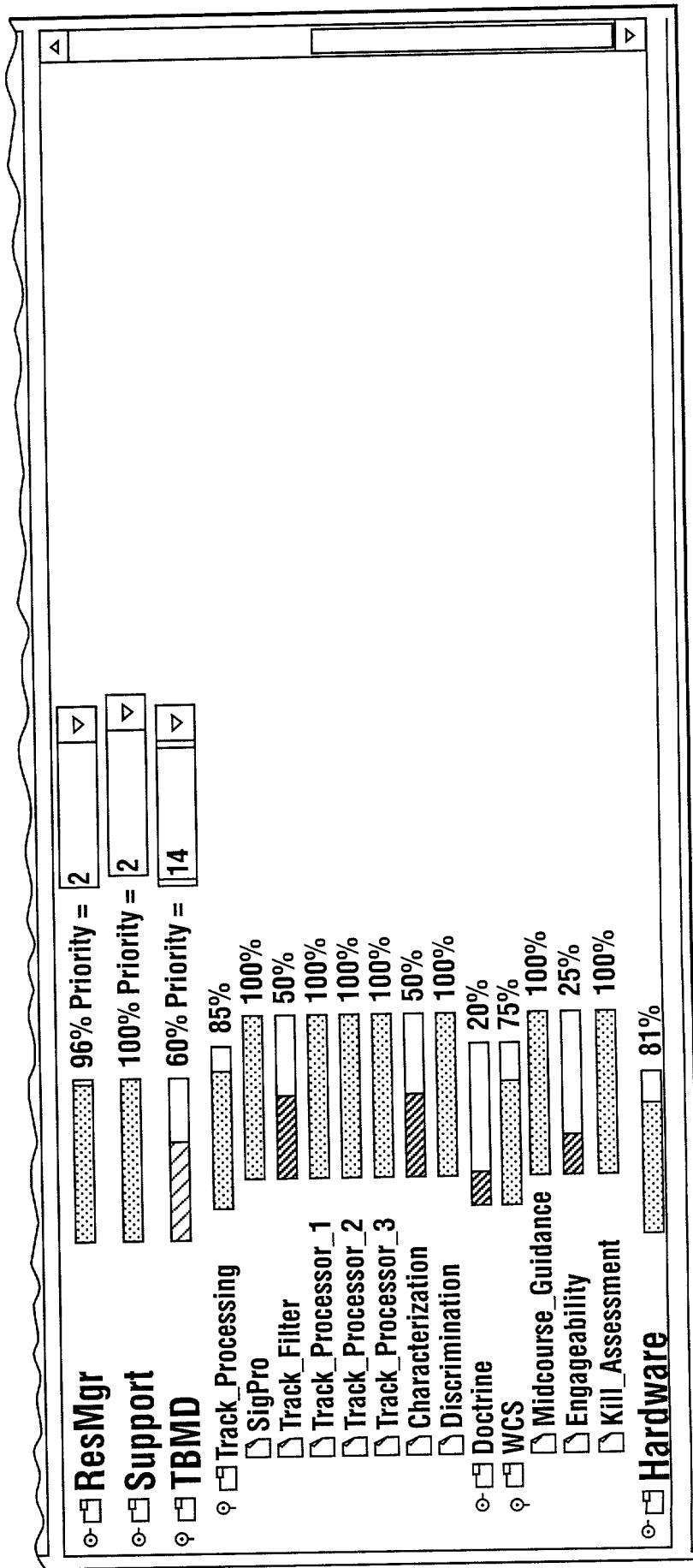
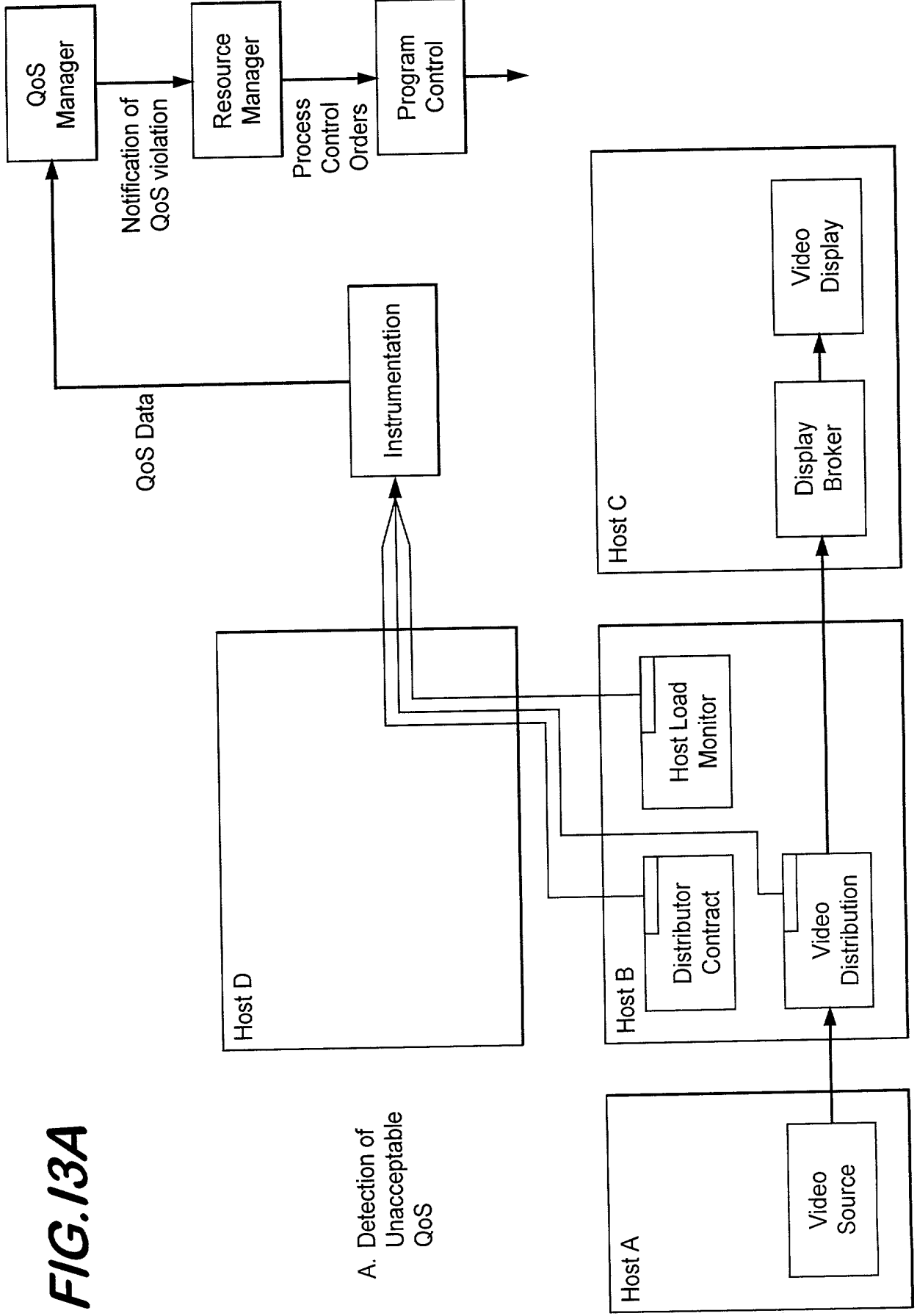


FIG.12B

FIG. 13A

A. Detection of Unacceptable QoS



**FIG.13B**

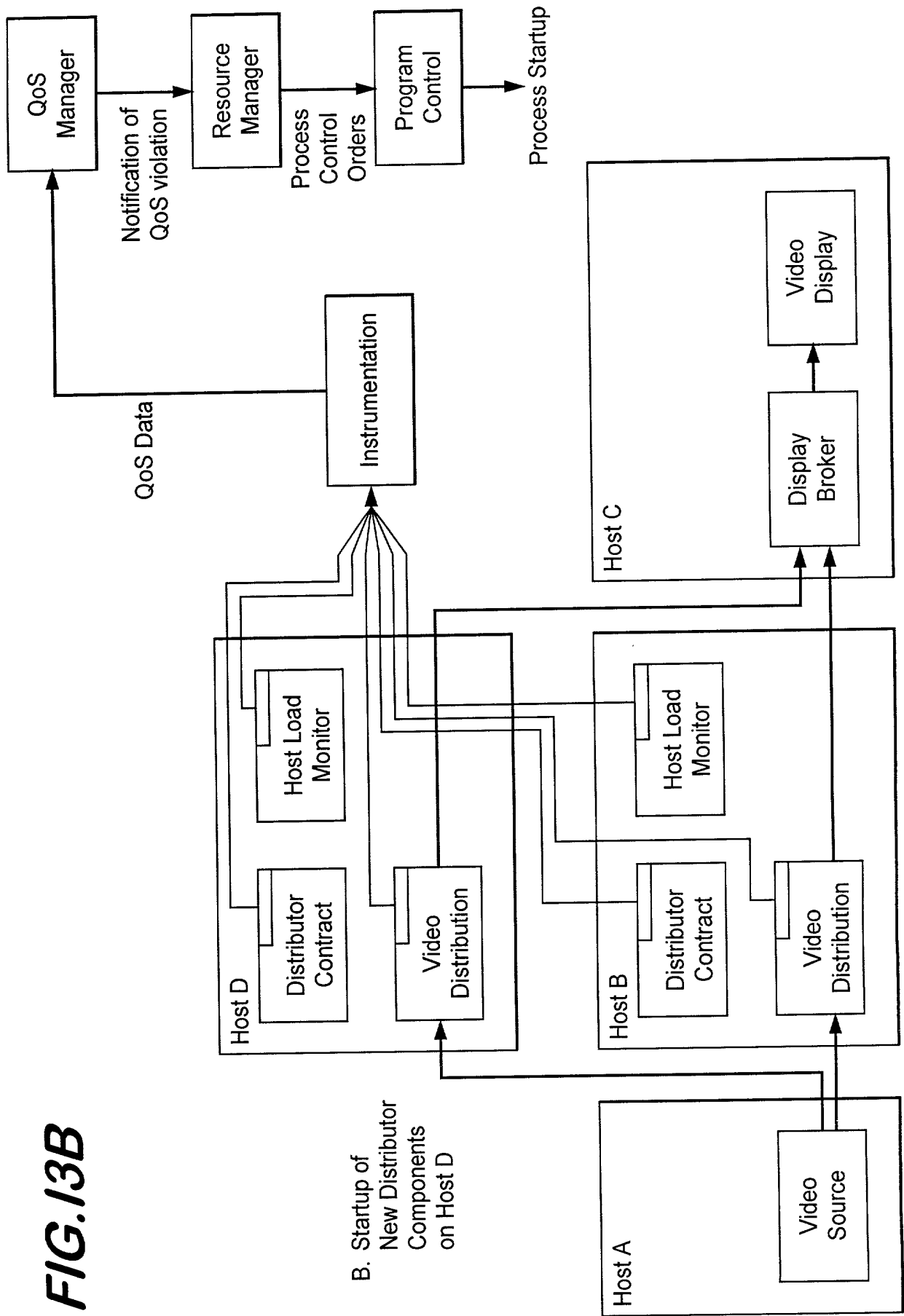
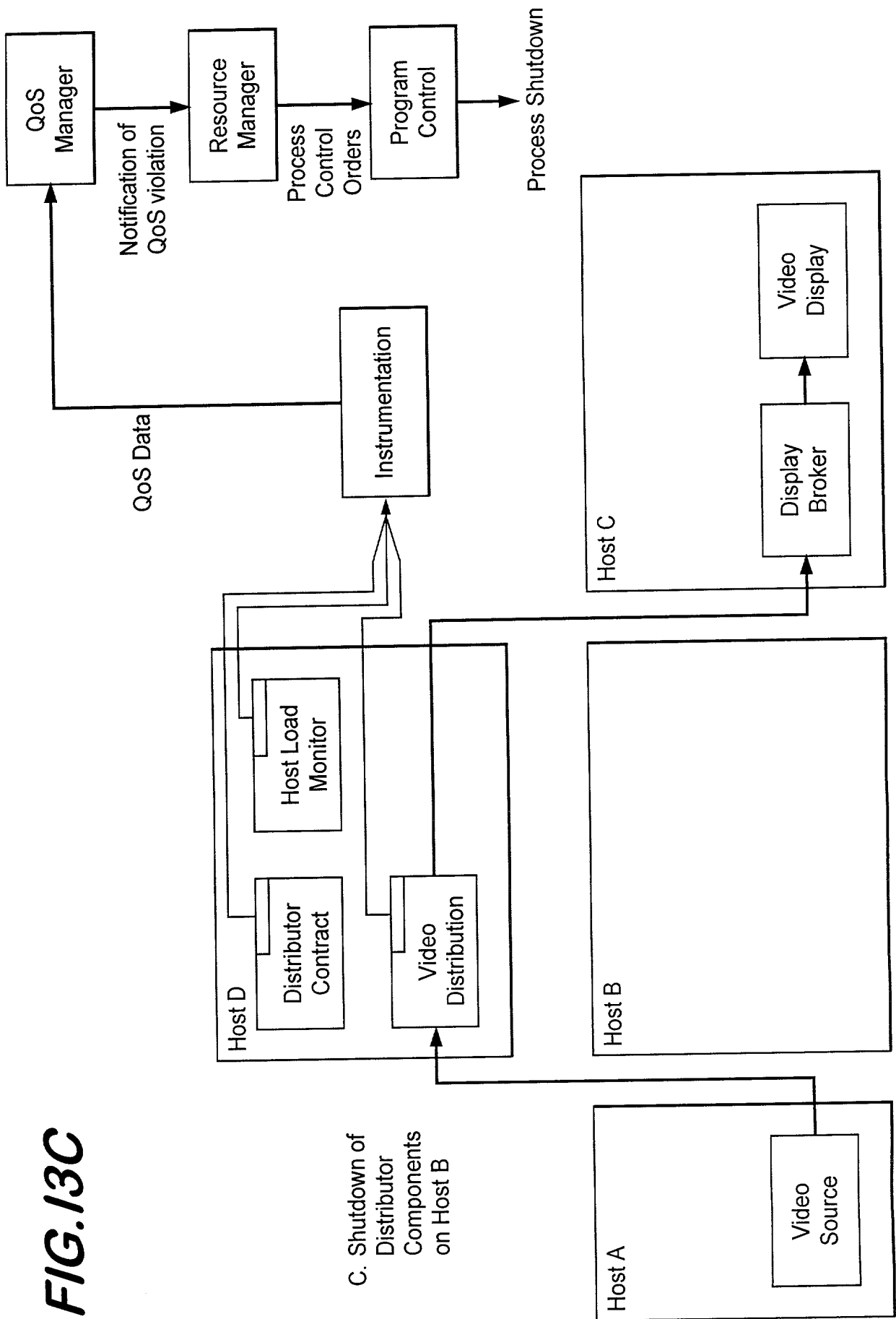
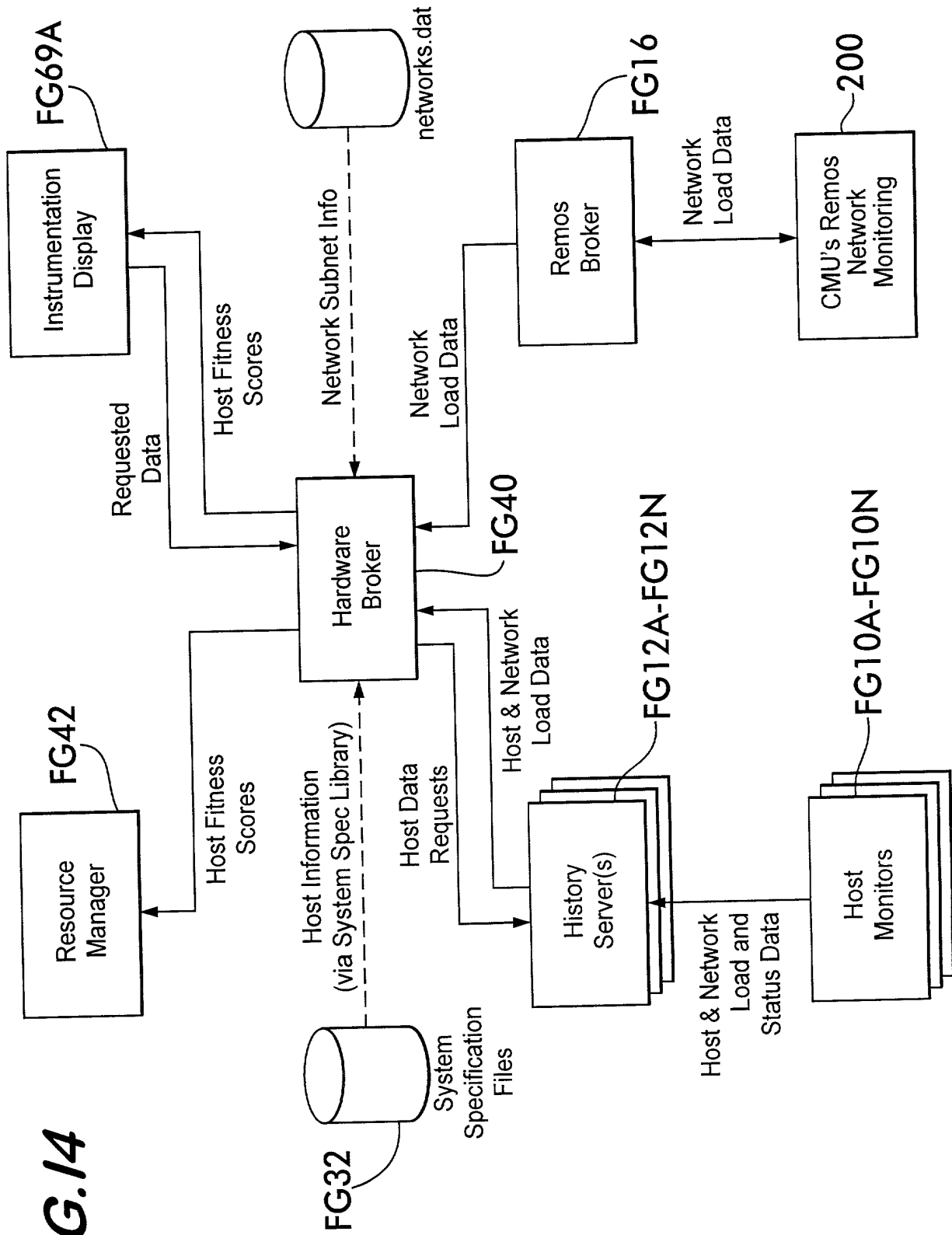




FIG.13C





**FIG.15**

